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Changed	tho margins in ca	ses where tho	sequence text wa	as 'wrapped' o	down to tho next	fine.	
Edited a	format error in the	Current Applic	ation Data sectio	n, specifically			
	e Current Applicati was [] the pnor					nputted by	y the
Added the	a mandatory head	ing and subhea	dings for *Currer	nt Application	Data*		
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Corrected	the SEQ ID NO w	hen obviously	incorrect. The se	equence numb	pers that wero ed	ited were.	
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	subheading place placed a response						10
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Deleted ex	xtra, invalid, headii	ngs used by ar	applicant, speci	fically:			
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Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

BEST AVAILABLE COPY

PATENT APPLICATION: US/09/761,466 TIME: 17:30:08

Input Set : A:\Pto.amc N:\CRF3\07102001\1761466.raw

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4 <110> APPLICANT: Lee, Ike W.
5 Izumo, Seigo
7 - 120 - TITLE OF INVENTION: Cardia - Call Sty- 1:1. Enhancer Elements
8 and Uses Thereof
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12 <140> CURRENT APPLICATION NUMBER: US 000 lol.400
13 <141> CURRENT FILING DATE: 2001-01-16
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25 <213> ORGANISM: Mus musculus
27 <400> SEQUENCE: 1
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30 ctaggteeta atgegggtgg egteteettt gacagungge gittggggae aacagegggg 180
31 acgagagata aggtgacata ccagagcaga tttggtucge gegetgatae tecteteeeg 240
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53 acqaqaqata aqqtqacata ecaqaqeaqa titqqtqqc qcqctqatac tectotecq 240
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59 aaaacacgca cacacagaga aagtgactgt qeacttaagg cqcctgtgtg tacccgtgtc 600
60 gttttagega atttaaagea catcaggeeg ggegeentag efenegeetg taateecage 660
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61 actitaggag geographing geographicaed through many apthograph cardestegger 720 62 aacatggtga aaccetgtet etacaaaaaaa tucaaaaatt ageegggeut ggfgatgegt 780

PATENT APPLICATION: US/09/761,466 TIME: 17:36:08

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     YO SELLIS LENGTH: 1838
     /1 -212> TYPE: DNA
     72 - 213 > ORGANISM: Homo supiens
     74 -220> FEATURE:
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     76 - 222 LOCATION: (1)...(+838)
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     83 coactgoact coagnotagg agaragagta agaratate agatagata acaaacaaat
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     84 aatgattaaa ataactaaaa ctaattttat getidiiica cettytättt tytaaaqatt
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     98 ataaaaccac aatgagacac coccacgooc coangs jaac ggottaaaat otaaaacatu
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PATENT APPLICATION: US/09/761,466

TATE: 07/15-200 TIME: 17:36:08

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124	atgtttttcc	etentitaci	tttctacaqt	aattittatt	ttqqataaat	aaaccctqut	2700
125	aaatgagaac	ceacqctttc	ccaaggccaj	gotatatttt	aut augtaut.	ceteeqtead	2760
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132	etgeetgeag	at cocogaga	gtt meda u	data adaptir	acet aggict a	décacado-re	3180
133	etttaetata	actuaaddac	carcettore	ageacet firt	ttoccetota	dectadactic	3240
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135	gatagagaaa	cetuacetes	tegragtecu	daudithauc	ttigaccogg	cardicaction	3360
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VERIFICATION SUMMARY | IATE: 07/10//001 PATENT APPLICATION: US/09/761,466 | PIME: IT: 06/00

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Mar totale

375

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4 <110 - APPLICANT: Lee, Ike W.
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5 Izumo, Seigo

7 <120> FITLE OF INVENTION: Cardiac-Cell Specific Enhancer Elements

8 and Uses Thereof

10 <130> FILE REFERENCE: 01948/069002

12 <140 > CURRENT APPLICATION NUMBER: US 09/761,466

13 <141> CURRENT FILING DAIE: 2001-01-16 15 <150> PRIOR APPLICATION NUMBER: US 60/176,419

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- W--> 30 (120ctaggtccta atgcgggtgg cgtctccttt gacaggcggc gtttggggac aacagcgggg
- W--> 31 180acqaqaqata aqqtqacata ccaqaqcaqa tttqqtqqqc qcqctqatac tcctctccq
- W--> 32 240acaggaaacg cggagetatt taaaagaccc tatcgattac tttatettte ctggaaagct W--> 33 300tcttgcqqag agacaaaaga tgttccctgc ctaaagacac aaggccacac aacggagggt
- E--> 34 360ctgcacaggc gacgc
  - 44 <210> SEO ID NO: 3
  - 45 <211> LENGTH: 1072 46 <212> TYPE: DNA
  - 47 <213> ORGANISM: Homo sapiens
  - 49 <400> SEQUENCE: 3
- E--> 50 aggeococcq cacceteate etgqeteccq eccettetet ecaccetece qqaccectaa
- W--> 51 60aggggcggcg gggcccaagc cgagggcgct gcgcctgacc ccgagcggaa gggccccagt
- W--> 52 120ctaggtccta atgcgggtgg cgtctccttt gacaggcggc gtttggggac aacagcgggg
- W--> 52 120ctaggtecta atgcgggtgg cytctccttt gacaggcggc gtttggggac aacagcgggg
  W--> 53 180acgagagata aggtgacata ccagagcaga tttggtgegc gegctgatac tectetceccg
  W--> 54 240acaggaaacg cygagctatt taaaagaccc tatcgattac tttatctttc ctggaaagct
- W--> 55 300tettgeggag agacaaaaga tgttccctgc ctaaagacac aaggccacac aacggagggt
- W--> 56 360ctgcacagge gacgcacaat teggegeggg gaaagcaaaa acacactgac gettagagtg
- W--> 57 420cacaaacgtg tgtgttccca gagcagctcc agagtgcggc agggacgctg ggggcggcga W--> 58 480ggggcaccca cagtatggtc ttctgtgccc ttggaaagtt ttttttcacc gtatgcgcgt
- W--> 59 540aaaacacgca cacacagaga aagtgactgt gcacttaggg cgcctgtgtg tacccgtgtc
- W--> 60 600gttttagega atttaaagea cateaggeeg ggegeeatgg eteaegeetg taateeeage
- W--> 61 660actttaggag geegaggegg geegateace tgaggteggg agttegacae eageetggee
- W--> 62 720aacatggtga aaccetgtet etacaaaaaa tacaaaaatt ageegggeat ggtgatgegt
- W--> 63 780gcctgtgatc ccagctactc gggaggctga ggcaggagaa tcgcttgaac ccgggaggcg
- W--> 64 840gaggttgcag tgagccgaga tcacaccact gcactccagc ctgggcgaca agagcgaaat

1072

same

478

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/761.466

DATE: 06/2./2001 TIME: 16:24:24

Input Set : A:\PTO.txt

Output Set : N:\CRF3\06212001\1761466.raw

W--> 65 900tccqtctaaa aaaataaaat aaaataaaat qataattaaq cccatcaact cacattcaaa W--> 66 960gcggttactg gtggttgtaa tgtatccata gacacaggtc taaaatgtaa acgctccatt

E--> 67 1020gtgctccttt taagggcttg aatgtctgca actgtcatgt gtacacttaa ag 337 -210 - SLQ 1D NO: 6

338 -211> LENGTH: 478

339 - 2125 TYPE: DNA

340 - 213 > ORGANISM: Homo sapiens

342 <400> SEQUENCE: 6

E--> 343 agagaaatea ttacccgatt cacaaagage atagagagtg taacagtcac tgatcttgtt

W--> 344 60caaataggga gagttttttt teetteeett tttgtaacae etgaeecaea ggaetgaeag

W--> 345 120ttctaggaag ccccttacc cgaaaatagg aaataaatcc ttgccacctt gatttgcaag

W--> 346 180ggcaatgcta attttttct ttctccagag ctctcaaaaa aaaaaaaaa aaaaccttac

W--> 347 240taaaaacagg gatcccggat gtagcctcga tgtcccccat taaacggtaa tatttcaggc W--> 348 300gtccgctcac actaatcttt caaactgtca tcgcgagccg cctggccagc agattcactt

W--> 349 360aacagcgctc ccaggaccct cgttccgagc tcttttcagc gagacattta attgaatcgg

E--> 350 420atgtqqctcq tttqccaqac qtcaccqcct cqqcqataqq catcctctcc aacgacac

## VERIFICATION SUMMARY

DATE: 06/21/2001 PATENT APPLICATION: US/09/761.466 TIME: 16:24:26

Input Set : A:\PTO.txt

Output Set: N:\CRF3\06212001\1761466.raw

Lize M: 254 to No. of Bases conflict IFNGIB: Input: 0 Counted to Should ::. # N:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1:50 M:336 W: Invalid Amino Acid Number in Coding Region, SEC ID:1 1:40 H:334 W: (2) Invalid Amino Acid in Coding Region. NUMBER OF INVALID KEYS:6 1:31 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:1 L:31 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1:32 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:1 1:32 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1:33 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:1 L233 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1:34 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:1 M: 254 Repeated in SegNo-1 L:34 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3 L:34 M:252 E: No. of Seq. differs, <211>LENGTH:Input:375 Found:75 SEO:1 L:50 M:254 E: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:3 L:51 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:52 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:3 1:52 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1:53 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:3 L:53 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:54 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 L:54 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:55 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 L:55 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:56 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:3 L:56 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:57 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ 1D:3 5:57 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:58 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 L:58 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:59 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ 1D:3 L:59 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:60 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 L:60 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:61 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:3 1.:61 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1.:62 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 L:62 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:63 M:336 W: Invalid Amino Acid Number in Coding Region, SEU ID:3 L:63 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 5:64 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:3 L:64 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:65 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 L:65 M:331 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 L:66 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3 1.:66 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6 1.:67 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:3

M:254 Repeated in SeqNo=3

# VERIFICATION SUMMARY

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PATENT APPLICATION: US/09/761,466

DATE: 06/21/2001 TIME: 16:24:26

Input Set : A:\PTO.txt

Output Set: N:\CRF3\06212001\I761466.raw

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1:67 M: 320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID REYS:4
Lib M: 252 E: No. of Seq. differs, <211×LENGTH: Input: 1072 Found: 112 SFQ: 3
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID::4
L:210 M:341 W: (46) "n" or "Xaa" used, for SFQ ID#:4
1:223 M:311 W: (46) "n" or "Xua" used, for SEQ ID#:5
1:224 M:311 W: (46) "n" or "Xaa" used, for SEQ ID#:5
1:235 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:237 M:341 W: (46) "n" or "Xaa" used, for SFQ ID#:5
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ 1D#:5
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:265 M:341 W: (46) "n" or "Xaa" used, for SEQ 1D#:5
1:267 M:341 W: (46) "n" or "Xia" used, for SEQ ID#:5
L:286 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:287 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
1.230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID::5
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID::5
L:330 M:341 W: (46) "n" or "Xaa" used, for SEQ ID::5
1:331 M:341 W: (46) "n" or "Xaa" used, for SEQ ID::5
L:333 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:334 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:343 M:254 F: No. of Bases conflict, LENGTH:Input:0 Counted:60 SEQ:6
I:344 N:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:345 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
1:345 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:346 M:336 W: Invalid Amino Acid Number in Coding Region, SEO JD:6
L:346 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:347 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:6
6:347 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
L:348 M:336 W: Invalid Amino Acid Number in Coding Region, SEO ID:6
1.:348 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
1.:349 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
L:349 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:6
1:350 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:6
M: 254 Repeated in SegNo=6
1:350 M:320 E: (1) Wrong Nucleic Acid Designator, NUMBER OF INVALID KEYS:3
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L:350 M:252 E: No. of Seq. differs, <211>LENGTH:1nput:478 Found:118 SEQ:6